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BROOKE, MICHAEL S	
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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/665,752
Filing Date: September 19, 2003
Appellant(s): RUTLAND ET AL.

MAILED

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GROUP 2800

Larry K. Roberts
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 09/09/04.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences that will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) *Issues*

The appellant's statement of the issues in the brief is correct.

(7) *Grouping of Claims*

The rejection of claims 1-3, 5, 7-18, 20-36 and 38 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

(8) *Claims Appealed*

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

6,082,852	Soga et al.	07/2000
5,085,698	Ma et al.	02/1992
5,971,531	Dietl et al.	10/1999

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3, 5, 7-18, 20-36, 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soga et al (US 6,082,852) in view of Ma et al (US 5,085,698).

Soga et al discloses the following claimed features:

- A containment vessel (2a)
- A body of reservoir material (3a) disposed in the vessel
- A fluid interconnect opening (6a) formed in the vessel
- A screen (5a) disposed in the containment vessel and across the interconnect opening

- The screen pore size of 40 microns (column 8, line 39+)
- An inkjet print cartridge (11a) comprising an inkjet printhead (15a)
- A receiving station (the carriage; column 9; second paragraph)
- A filter (13a) in a fluid interconnect structure (12a)
- A vent opening (4a)
- The steps recited in the method claims are considered inherent functions associated with the aforementioned structures.

Soga et al discloses all features of the claimed invention except for a supply of pigmented liquid ink disposed in the containment vessel.

However, Ma et al discloses using pigmented ink for ink jet printers because it gives printing images with good print quality, water and smear resistance, lightfastness, and storage stability (Abstract).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the pigmented ink as taught by Ma et al as an ink supply in the reservoir of Soga et al for the purposes of producing printing images having good print quality, water and smear resistance, lightfastness, and storage stability.

6. Claims 6, 19, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soga et al (US 6,082,852) in view of Ma et al (US 5,085,698) as applied to claims 1-3, 5, 7-18, 20-36, 38 above, and further in view of Dietl et al (US 5,085,698).

Soga et al as modified discloses all features of the claimed invention including the screen 5a being made from various material including a resin mesh.

However, Soga et al does not disclose the particular type of resin such as polyester mesh as recited in the claim.

Nevertheless, Dietl et al discloses a polyester mesh filter 48 (column 5, line 53) uses to prevent debris or air bubbles from entering the ink pipe connector and thus to the printhead.

Since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious choice (See MPEP 2144.07) and since the material such as polyester is a known material for the intended purpose of preventing debris or air bubbles from passing there through as evidence by Dietl et al, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select any suitable material including polyester mesh as taught by Dietl et al as the

material for the screen of Soga et al for the purpose of providing a filter that can prevent debris or air bubbles from entering the ink pipe connector and thus to the printhead.

(11) *Response to Arguments*

Claims 1-3 and 5-7

The Appellant's argument that neither Soga nor Ma disclose "...the screen having a pore size small enough to prevent air passage at operational pressures and large enough to allow said dispersed colorant particle to pass through" is not persuasive. For convenience, the Examiner has provided Fig. 1A of Soga and has labeled the various elements in accordance with the Appellant's claims.

A detailed cross-sectional view of a fluid interconnect assembly 1a. The assembly features a containment vessel 2a with a reservoir material 5a. A fluid interconnect inlet port 12a is shown with a screen 6a and a fluid interconnect outlet port 14a. Other components labeled include 3a, 4a, 7a, 11a, 13a, and 21a.

The diameter of each minute perforation of the tank meniscus member 5a is determined by the characteristics of the ink holding member 3a and ink used, and the size of the ink tank 1a. The perforation diameter is selected so that even when the ink tank 1a is detached from the print head, no ink leaks, and even when the ink tank 1a is turned upside down, no air enters the ink tank. The perforation diameter of the tank meniscus member 5a is selected to be within 20 μm to 70 μm , for example.

Thus, sofa teaches that the size of the perforations in the screen are determined by the type of ink that is to be contained in the ink tank and that the size of the

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perforation are such that no air is able to pass through the screen. Although Soga is silent as to the type of ink that is used, one of ordinary skill in the ink jet art would clearly recognize that any type of ink could be used, as the screen can be designed to accommodate any type of ink. Thus, the only question is whether or not one of ordinary skill in the ink jet art would have found it obvious to modify Soga to have pigmented ink. The answer to this question is, yes. Ma teaches that is known in the ink jet art to use a pigmented ink to provide an image having good print quality, water and smear resistance, lightfastness and storage stability (see Ma, abstract). Thus, it would have been obvious to one of ordinary skill in the ink jet art to have modified Soga to use pigmented ink, in order to provide these advantages. Furthermore, given the teachings of Soga, one of ordinary skill in the art would have known to make a screen having a pore size that is large enough to pass the pigment particles, but is small enough to prevent the passage of air.

Claims 8-13 and 27-31

The Appellant's argument that the prior art or record fails to teach:

- *" . . . providing the ink container with an interconnect outlet pod, and with a body of reservoir material disposed in the container, the ink container further including a screen disposed across the interconnect outlet port and in contact with the reservoir material, the screen having a pore size small enough to prevent air passage at operational pressures and large enough to allow said dispersed colorant particles to pass therethrough; bringing the interconnect outlet port and the screen into contact with the fluid interconnect inlet port"*
- *" . . . an outlet screen disposed across the interconnect outlet port and in contact with the reservoir material"*
- *" . . . bringing the outlet screen into contact with the fluid interconnect inlet port"*

is not persuasive. The Appellant argues that these limitations are not inherently taught by the structure of Soga, as modified by Ma, because Soga teaches different structural embodiments. This position is not correct. MPEP 2112.02 states:

Under the principles of inherency, if a prior art device, in its normal and usual operation, would necessarily perform the method claimed, then the method claimed will be considered to be anticipated by the prior art device. When the prior art device is the same as a device described in the specification for carrying out the claimed method, it can be assumed the device will inherently perform the claimed process. In re King, 801 F.2d 1324, 231 USPQ 136 (Fed. Cir. 1986).

As can be seen in Figs. 3 and 4 of Soga, the screen (5a) and the interconnect outlet port (6a) are necessarily brought into contact with the fluid interconnect inlet port (14a). Thus, the claimed method limitation is inherently taught by the structure of Soga, as modified by Ma. Likewise, all of the other claimed method limitations are necessarily taught by the structure of Soga, as modified by Ma.

Claims 14-20

The Appellant's argument neither Soga nor Ma teach:

- *"....a screen disposed in' the containment vessel and across interconnect opening"*
- *" . . . the fluid interconnect opening and the screen is brought into contact with the fluid interconnect inlet port when the ink container is installed in the receiving station"*

is not persuasive. As shown in Figs. 3 and 4 of Soga, a screen (5a) is disposed across the interconnect opening (6a) and the screen and the interconnect opening are brought into contact with the fluid interconnect inlet port (14a) when the ink container is mounted onto the printer carriage.

Claims 21-26 and 32-38

The Appellant's argument that neither Soga nor ma teach:

- *" . . . the body of reservoir material having a region adjacent to and in contact with a screen disposed within the container and across the interconnect outlet port . . ."*
- *" . . . bringing the screen into contact with the fluid interconnect inlet port, thereby compressing the region of the body of reservoir material adjacent to the screen and forming a region of increased capillarity adjacent the fluid interconnect outlet port"*
- *" . . . the body of reservoir material disposed in the containment vessel, the body of reservoir material having a region adjacent to and in contact with the screen...."*
- *" . . . the fluid interconnect inlet port contacts the screen thereby compressing the region of the body of reservoir material adjacent to the screen and forming a region of increased capillarity adjacent the screen."*

is not persuasive. First, the Examiner wishes to point out that the identification of element "7a," of Soga, as reservoir material, was inadvertently omitted from the Final Rejection. However, it is clear from the teaching of Soga that the ink passing member (7a) is made of a capillary material that retains ink and thus, functions as an ink reservoir material (col. 8:56-67 and col. 9:1-11). Please note, that col. 8:58-59 states that ink drips from the ink passing member when the ink tank is removed. This description is in error. The description should state that no ink drips from the ink passing member when the ink tank is removed. Support for this position can be found at col. 13:7-11 and from that fact that it is completely undesirable to have ink leak when the ink tank is removed. As can be seen in Fig. 4, reservoir material (7a) has a region that is adjacent to and in contact with the screen (5a). Furthermore, the screen is

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brought into contact with the reservoir material (7a), thereby compressing the reservoir material (see Fig. 4, which illustrates that the reservoir material (7a) is compressed by the screen (5a) and the discussion found at col. 10:7-18 and col. 14:48-58 of Soga).

Thus, Soga, as modified, teaches that claimed limitations.

Claims 6, 19 and 37

The Appellant has not provided any arguments against the use of Dietl. Since Soga and Ma teach the claimed invention. The combination of Soga, Ma and Dietl is appropriate.

For the above reasons, it is believed that the rejections should be sustained.


Respectfully submitted,



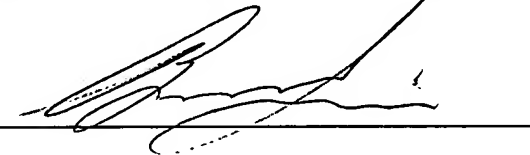
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